



Site Description

The Chemsol, Inc. site is located at the end of Fleming Street, in the Township of Piscataway, Middlesex County, New Jersey. Interstate 287 is located approximately one-half mile south of the site, and the site is bounded on the south by the Reading Railroad right-of-way. The site covers approximately 40 acres. Land use in the vicinity of the site is commercial and residential. Single family residences are located immediately west and southwest of the site. Industrial and retail/wholesale businesses are located south and east of the site. An apartment complex is located north of the site.

The site was operated as a solvent recovery and waste reprocessing facility in the 1950's through approximately 1964. Recovery and reprocessing activities included operations such as mixing, blending and distillation. The facility was closed after a series of industrial accidents, explosions and fires. In 1978, the site was purchased by Tang Realty Corporation. In 1984, the New Jersey Department of Environmental Protection (NJDEP) entered into an Administrative Consent Order with Tang Realty requiring that Tang Realty perform an investigation to evaluate contamination at the site and develop a remedial action plan for the site. Approximately 40 groundwater monitoring wells were installed by Tang Realty on-site or downgradient from the site. Sampling from these monitoring wells indicated that groundwater was contaminated with organic compounds. Furthermore, sampling and analysis of soils revealed the presence of polychlorinated biphenyls (PCBs) and organic compounds. In the summer of 1988, Tang Realty removed approximately 3,700 cubic yards of PCB-contaminated soils for off-site disposal. During the soil excavations for removal of PCB-contaminated soils, several thousand small (less than 1 gallon) containers of unknown substances were discovered. These unknown substances were stored in a trailer on-site.

Sampling was conducted by Tang Realty and the Middlesex County Health Department at private (residential) wells located downgradient of the site (in the "Nova Ukraine" area of Piscataway). The results of sampling performed in January 1990 indicated the presence of organic contaminants in residential wells. The Township extended municipal water service into the Nova Ukraine area during the Fall of 1990. In the Fall of 1990, EPA and the NJDEP agreed that EPA should perform site investigations and federally fund the remainder of the investigatory work.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties actions.

NPL LISTING HISTORY

Proposed Date: 12/01/82

Final Date: 09/01/83

Threats and Contaminants



Volatile organic compounds, semi-volatile organic compounds, pesticides and metals have contaminated groundwater underlying the site. Many of the chemicals detected in the groundwater are known carcinogens in animals and are suspected human carcinogens (e.g. chloroform, 1,2-dichloroethane and methylene chloride). Other chemicals detected at the site are known human carcinogens (e.g. vinyl chloride, arsenic and benzene).

Many of the hazardous substances detected in the groundwater at the site are present at levels which far exceed Federal and State standards and guidelines for groundwater. In addition, the data collected to date demonstrate that groundwater contaminants have migrated off the site. Potential human exposure pathways include direct contact with groundwater, ingestion of groundwater and inhalation of contaminants present in the groundwater.

Site soils are contaminated with PCBs, volatile organic compounds and lead. The contaminated soil could pose a health hazard through direct contact and ingestion.

Cleanup Approach

The site is being addressed through an immediate removal action and through a two-phase long-term remedial action.

Response Action Status



EPA Removal Action: During 1990 and 1991, unknown substances discovered during soil excavations and stored in a trailer on-site were addressed through an EPA removal action. The unknown substances were analyzed for compatibility, with compatible wastes grouped together for off-site disposal.



Phase One Remedial Action: The first phase of remedial activities included the development of a Focused Feasibility Study (FFS) to evaluate interim actions to restrict off-site migration of highly contaminated groundwater to a depth of approximately 130 feet.

EPA documented its selection of an interim remedy in a Record of Decision (ROD), which was issued on September 20, 1991. The selected interim remedy specified in the ROD involves extraction of contaminated groundwater underlying the site (to approximately 130 feet), treatment of the contaminated groundwater and conveyance of the treated groundwater to a surface water body (stream) flowing along the eastern property boundary of the site. Design of the interim remedy was

completed in May 1993. Construction activities began during August 1993 and were completed during the Summer of 1994. The interim remedy became fully operational in September 1994.

On July 25, 1994, EPA issued an Explanation of Significant Differences (ESD) with regard to the interim remedy. The interim remedy was modified to allow discharge of treated groundwater to the sewer, but retained the flexibility for discharging to the on-site stream if discharge to the sewer is no longer feasible.



Phase Two Remedial Action: The second phase of remedial activities was designed to address potential off-site and deeper groundwater contamination, as well as soil and air contamination. The second phase Remedial Investigation/Feasibility Study was completed in July 1997. On September 18, 1998, EPA signed a Record of Decision for the phase II activities. The Record of Decision addresses both the soil and groundwater contamination. For the soil contamination: approximately 18,500 cubic yards of soils contaminated with PCBs above 1 part million (ppm) and lead above 400 ppm will be excavated and disposed of off-site at an appropriate disposal facility. The excavated areas will be backfilled and covered with clean topsoil, then seeded. For the groundwater: additional extraction wells will be installed and pumped to contain contaminated groundwater on-site; continued treatment of extracted groundwater through the existing groundwater treatment facility; and the performance of an additional groundwater investigation to determine if contaminated groundwater is leaving the property boundaries. Surface water and sediments will also be monitored.

Site Facts: EPA notified various entities of their potential liability as potentially responsible parties (PRPs) with respect to this site. On March 9, 1992, EPA issued a Unilateral Administrative Order to 4 PRPs for the design and construction of the interim remedy. Under the Order, the PRPs completed design and construction activities, and are currently operating the interim remedy. The PRPs have also extended the existing fencing at the site, in order to further limit access to potentially contaminated areas.

In August 1999, EPA and the responsible parties signed a Consent Decree for the implementation of the 1998 Record of Decision. Under the Consent Decree, the responsible parties agreed to perform the remedial design and remedial action for the soil and groundwater as described in the Record of Decision. The responsible parties completed the remedial design for the soils in July 2001; remedial action activities for the soils began in August 2001. The soil remedy is expected to be completed in May 2002. Remedial design for the groundwater is still ongoing and is expected to be completed by April 2002.

As a part of the 1998 Record of Decision, EPA determined that further groundwater investigations were needed to determine if contaminated groundwater was leaving the boundaries of the site. EPA entered into an Administrative Order on Consent with the responsible parties to perform this investigation which is being conducted as a separate Operable Unit (Operable Unit 3). This investigation began in September 2001.

Cleanup Progress



Under Construction

Approximately 3,700 cubic yards (5,970 tons) of PCB-contaminated soils were excavated and disposed of off-site in the Summer of 1988 by Tang Realty. Approximately 10,000 pounds of crushed lab pack bottles, 13,500 pounds of hazardous waste solids, 615 gallons of hazardous waste liquids and 150 pounds of sulfur trioxide were disposed off-site by EPA as part of its 1990 removal action. The groundwater treatment plant, constructed in 1994 as the first phase remedial action, has treated over 100 million gallons of contaminated groundwater since becoming operational.

As a part of the 1998 Record of Decision, approximately 28,000 cubic yards of contaminated soils have been excavated and disposed of off-site. The excavated areas have been backfilled and seeded with grass. The wetlands that were destroyed during the soil excavation are now being restored, the soil portion of the remedy will be completed by May 2002. The groundwater design is in its final stage and field work will begin the summer and be completed by late fall.